

REMARKS

The present Amendment amends claims 1, 2, 5, 7, 8 and 10-19, and leaves claims 3, 6 and 9 changed. Therefore, the present application has pending claims 1-3 and 5-19.

The title stands objected to as allegedly not being descriptive of the present invention. The title was changed to "AUTOMATIC SCENARIO MANAGEMENT FOR A POLICY-BASED STORAGE SYSTEM", as suggested by the Examiner. Therefore, this objection is overcome and should be withdrawn.

Claims 1-10, 12, 14, 16 and 18 stand rejected under 35 USC §102(e) as being anticipated by Matsunami (U.S. Patent No. 6,912,627); and claims 1-19 stand rejected under 35 USC §102(e) as being anticipated by Carlson (U.S. Patent Application Publication No. 2003/0135609). These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-3 and 5-19 are not taught or suggested by Matsunami or Carlson whether taken individually or in combination with any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Amendments were made to each of the independent claims so as to more clearly describe, for example, that the present invention is directed to a method or a computer program for managing storage devices by using a computer wherein the computer reads information about an operation rule for the storage devices accommodated previously in a memory device and information about an operation procedure being an order of execution of a

plurality of operations of the storage device associated with the operation rule for the storage devices. According to the present invention as now more clearly recited in the claims the operation rule defines for the operation procedure a predetermined action to be taken if a preset condition is not satisfied upon execution of the operation procedure.

According to the present invention the computer receives an instruction to select the information about the operation rule for the storage devices from a user, sends the storage devices and instruction to execution the operation procedure of the storage devices associated with information about the operation rule based on the operation rule received, obtains a result of execution of the operation procedure and changes the execution order of the operations of the operation procedure if the execution result indicates the preset condition has not been satisfied. According to the present invention the execution order of operations of each operation procedure is different relative to the execution order of the operations of each of a plurality of other operation procedures.

The above described features of the present invention are illustrated, for example, in Figs. 4 and 5 of the present application. As set forth in Fig. 4, an example of a scenario definition file is provided wherein an identifier is assigned to each of a plurality of scenarios which are a procedure of actions defined to realize the contents of a policy definition file. Thus, according to the present invention a plurality of scenarios may be defined for one policy and a scenario may be shared by a plurality of policies.

Fig. 5 of the present application shows a structure of a priority definition file which indicates a priority of the various scenarios defined in each policy.

Thus, Fig. 5 sets forth, for example, an order of execution of a plurality of operations of an operation procedure.

The above described features of the present invention are not taught or suggested by any of the references of record whether taken individually or in combination with each other. Particularly, the above described features of the present invention as now more clearly recited in the claims are not taught or suggested by Matsunami or Carlson whether taken individually or in combination with any of the other references of record.

Matsunami teaches a method of creating a storage area of storage device in a storage system such that a plurality of already set storage areas are exclusively managed. Matsunami teaches, for example, that an administrator at a management console controls the storage in a manner such that by executing a pool area management program 1524, pool areas can be set. As taught by Matsunami, the pool area management program 1524 can set, for example, a capacity of a RAID group and other characteristics of a storage area. Matsunami further teaches, for example, in col. 9, lines 7-12 that the pool area management program 1524 provides steps wherein a confirmation can be obtained whether a capacity in the pool area satisfies a designated capacity of a storage area which is to be defined. Matsunami teaches that if the remaining capacity satisfies the designated capacity the capacity used by the designated capacity and the remaining capacity are updated.

However, at no point is there any teaching or suggestion in Matsunami that the execution order of operations of storage devices can be set by an operation procedure as in the present invention and that when the execution

order of the operations are set feedback is provided to provide notice as to whether the set execution order satisfies preset conditions.

Still further, there is no teaching or suggestion in Matsunami that if there is an indication that the set execution order of operations do not satisfy the preset conditions then the execution order of the operation is changed as in the present invention.

Still further yet, there is no teaching or suggestion in Matsunami that the execution order of the operations of each operation procedure is different relative to the execution order of the operations of each of the other operations procedures available to be executed by the storage devices as in the present invention.

Thus, Matsunami fails to teach or suggest a method for managing storage devices by using a computer, wherein the computer reads information about an operation rule for the storage devices accommodated previously in a memory device and information about an operation procedure being an order of execution of a plurality of operations of the storage devices associated with the operation rule for the storage devices, and wherein the operation rule defines for the operation procedure a predetermined action to be taken if a preset condition is not satisfied upon execution of the operation procedure as recited in the claims.

Further, Matsunami fails to teach or suggest that the computer receives an instruction to select the information about the operation rule for the storage devices from a user, sends the storage devices an instruction to execute the operation procedure of the storage devices associated with information about the operation rule based on the operation rule received, obtains a result of

execution of the operation procedure and changes the execution order of the operations of the operation procedure if the execution results indicates the preset condition has not been satisfied as recited in the claims.

Still further, Matsunami fails to teach or suggest that the execution order of operations of each operation procedure is different relative to the execution order of operations of each of the other operations procedures as recited in the claims.

Therefore, Matsunami fails to teach or suggest the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §102(e) rejection of claims 1-3, 5-10, 12, 14, 16 and 18 as being anticipated by Matsunami is respectfully requested.

The above described deficiencies of Matsunami are also evident in Carlson. Carlson simply discloses a method, system and program for managing multiple resources in a system at a service level wherein the system includes at least one host, a network and a storage space comprised at least one storage system that each host is capable of accessing over a network. As per Carlson, a plurality of service parameters are measured and monitored indicating a state of the resources in the system and a determination is made of values for the service level parameters and whether the service level parameter values satisfy predetermined service level thresholds. Carlson teaches that an indication is made as to whether the service level parameters values satisfy the predetermined service thresholds and a determination is made as to modification to one or more of resource

deployment or considerations if the value for the service level parameter for the resource does not satisfy the predetermined level threshold.

Carlson specifically teaches, for example, in Figs. 15 and 18 steps which form a part of a flowchart in Fig. 18, 1140-1150. As taught by Carlson, for example, input/output (I/O) transactions weights are monitored and if they are lower than an agreed upon amount, then priority of the I/O of the corresponding transaction is raised.

However, at no point is there any teaching or suggestion in Carlson of the above described features of the present invention now more clearly recited in the claims shown above not to be taught or suggested by Matsunami.

Thus, Carlson fails to teach or suggest a method for managing storage devices by using a computer, wherein the computer reads information about an operation rule for the storage devices accommodated previously in a memory device and information about an operation procedure being an order of execution of a plurality of operations of the storage devices associated with the operation rule for the storage devices, and wherein the operation rule defines for the operation procedure a predetermined action to be taken if a preset condition is not satisfied upon execution of the operation procedure as recited in the claims.

Further, Carlson fails to teach or suggest that the computer receives an instruction to select the information about the operation rule for the storage devices from a user, sends the storage devices an instruction to execute the operation procedure of the storage devices associated with information about the operation rule based on the operation rule received, obtains a result of

execution of the operation procedure and changes the execution order of the operations of the operation procedure if the execution results indicates the preset condition has not been satisfied as recited in the claims.

Still further, Carlson fails to teach or suggest that the execution order of operations of each operation procedure in different relative to the execution order of operations of each of the other operations procedures as recited in the claims.

Therefore, Carlson fails to teach or suggest the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §102(e) rejection of claims 1-3 and 5-19 as being anticipated by Carlson is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-3 and 5-19.

In view of the foregoing amendments and remarks, applicants submit that claims 1-3 and 5-19 are in condition for allowance. Accordingly, early allowance of claims 1-3 and 5-19 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (500.43093X00).

Respectfully submitted,

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